

5235964



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D6104-007

Job Sheet 203488



Part No: D6104-007

Job Qty: 10 pcs

Part Name: Round Billet, 17-4



Part Weight: 0 lbs

Job Created: 11/20/19

Due Date: 12/16/19

Type: Stock

Note: DWG REV B

Ship Via:

Status: New

Priority: Medium

Job Tracking No:

Created By: Chantal Lavoie

Description:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard Setup Hrs	Run Hrs	Workcenter/Supplier	Lead Time	Sign-off
100	Purchasing	10 pcs		12/16/19	0.00	0.00	Purchasing - 1	DAS 13 9-89	
							Purchasing - 2	81	
							Purchasing - 3	9-89	NOV 29 2019
110	Packaging 2-1 - Receive - B4B	10 pcs		12/16/19	0.00	0.00	Packaging 2 - 1 - B4B		
							Packaging 2 - 2 - B4B		
							Packaging 2 - 3 - B4B		
							Packaging 2 - 5 - B4B		
							Packaging 2 - 4 - B4B		
							Packaging 2 - 6 - B4B		
							Packaging 2 - 7 - B4B		
							Packaging 2 - 8 - B4B		
							Packaging 2 - 9 - B4B		
							Packaging 2 - 10 - B4B		
							Packaging 2 - 11 - B4B		
							Packaging 2 - 12 - B4B		
							Packaging 2 - 13 - B4B		
							Packaging 2 - 14 - B4B		
							Packaging 2 - 15 - B4B		
							Packaging 2 - 16 - B4B	DAS 81 9-89	NOV 29 2019
							Packaging 2 - 17 - B4B		
							Packaging 2 - 18 - B4B		
							Packaging 2 - 19 - B4B		
							Packaging 2 - 20 -		



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S235964



Part: D6104-007

Job No: 203488

Serial No/Batch: S235964

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Date: 11/29/19

				B4B	
				Packaging 2 - 21 - B4B	
				Packaging 2 - 22 - B4B	
				Packaging 2 - 23 - B4B	
				Packaging 2 - 24 - B4B	
				Packaging 2 - 25 - B4B	
				Packaging 2 - 26 - B4B	
				Packaging 2 - 27 - B4B	
				Packaging 2 - 28 - B4B	
				Packaging 2 - 29 - B4B	
				Packaging 2 - 30 - B4B	
				Packaging 2 - 31 - B4B	
				Packaging 2 - 32 - B4B	
				Packaging 2 - 33 - B4B	
				Packaging 2 - 34 - B4B	
				Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
120	QC 18	10 pcs	12/16/19	0.00 0.00	QC 18 - 12
					QC 18 - 14
					QC 18 - 22
					QC 18 - 25
					QC 18 - 48
					QC 18 - 58
					QC 18 - 61
					QC 18 - 9
					QC 18 - 81
130	Packaging 3-1 - Stock - B4B	10 pcs	12/16/19	0.00 0.00	Packaging 3 - 1 - B4B
					Packaging 3 - 2 - B4B
					Packaging 3 - 3 - B4B
					Packaging 3 - 4 - B4B
					Packaging 3 - 5 - B4B
					Packaging 3 - 6 - B4B
					Packaging 3 - 7 - B4B
					Packaging 3 - 8 - B4B
					Packaging 3 - 9 - B4B
					Packaging 3 - 10 - B4B
					Packaging 3 - 11 - B4B
					Packaging 3 - 12 - B4B
					Packaging 3 - 13 - B4B
					Packaging 3 - 14 - B4B
					Packaging 3 - 15 - B4B

DAS
81
9-89

NOV 29 2019

317 19-11-29

				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
140	QC 21 - SA	10 pcs	12/16/19	0.00 0.00	QC 21 - SA - 21
					QC 21 - SA - 70
					QC 21 - SA - 53

DAS

21

3-22

NOV 29 2019

Part Op 100 - (Purchasing) Issue P/O: _____ b) Ø4.50" x 5.10" long
 Descriptions: 110 - (Receive & Inspect for Damage & Mat'l Certs) Ensure material certification is attached
 120 - (QC18 In-Coming Inspection Material) Ensure Material certification comply to Dwg D6104
 130 - (Identify as per dwg & Stock Location: _____)
 140 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6104-007P	17-4 SS Roundbar 4.50"Od	10 pcs (1 ea)	100-Purchasing	S235961

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	D6104-007P	10	0	0

Part Specifications

Specifications could not be found.

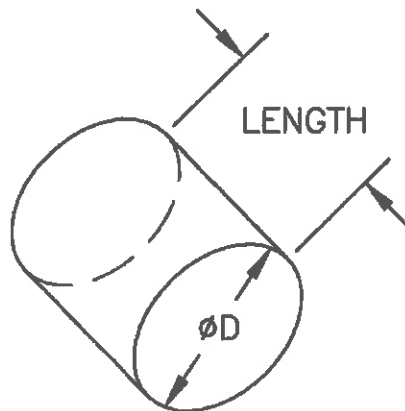
DART

DESIGN FF	DRAWN BY [Signature]	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D6104	Rev. B SHEET 1 OF 1
DATE 02.11.25		TITLE ROUND BILLET, 17-4	SCALE NTS
A	01.04.10	NEW ISSUE	
B	02.11.25	CLARIFY ALLOY SPEC ADDED D6104-009/-011 REDUCE LENGTH OF BILLETS	

RELEASED

02.11.29 [Signature]

SPECIFICATION CONTROL DRAWING



MATERIAL: 17-4 PH SS (AMS 5643 OR AISI 630) MIN UTS = 170 KSI (38 HRc)

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, DIAMETER x LENGTH (+0.030/-0.000) AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES

Part No.	Alloy	D (Diameter)	Length
D6104-001	17-4 PH STAINLESS STEEL	Ø3.00	3.80
D6104-003	17-4 PH STAINLESS STEEL	Ø3.25	3.80
D6104-005	17-4 PH STAINLESS STEEL	Ø4.00	5.10
D6104-007	17-4 PH STAINLESS STEEL	Ø4.50	5.10
D6104-009	17-4 PH STAINLESS STEEL	Ø5.25	4.10
D6104-011	17-4 PH STAINLESS STEEL	Ø6.50	4.10

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Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER POHB045164



Supplier: MEC002-VU
Metaux Castle
P.O. Box 4090 Stn A
Toronto
ON
M5W OE9 Canada

PO No: POHB045164

PO Date: 11/20/19

Due Date: 12/16/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lavoie, Chantal
Phone: 613-623-5200 Ext: 242
Fax: 613-632-1053
clavoie@dartaero.com

NOV 20 2019

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pynt Terms: Net 60

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Drawing	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1		M7075T6S.160			7075-T6 Sheet .160 : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive sf	Firmed	-	12/16/19	48 sf	0 sf	48 sf	\$17.00/sf	\$816.00
2	203486	D6101-001P	D6101	72746	7075-T7351 2X6X6.25 AS PER DWG D6101 REV. B SIZE: 6.00" X 6.250" X 2.00" THICK GRAIN DIRECTION ALONG 6.00" LENGHT MATERIAL: 7075-T7351 QQ-A-250/12 TOLERANCE AS PER QUOTE +.030"/-.000"	Firmed	-	12/16/19	40 pcs	0 pcs	40 pcs	\$29.57/pcs	\$1,182.80

40
pcs
GOS

NOV 29 2019



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER POHB045164



Items

Line Item	Job	Part	Drawing	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
3	203487	D6101-007P	D6102	72743	7075-T7351 8.25X7.75X2.5 : Various STC's AS PER DWG D6101 REV. B MATERIAL: 7075-T7351 (QQ-A-250/12) SIZE: 7.750" X 8.250" X 2.50" THICK GRAIN DIRECTION ALONG: 7.750" LENGTH TOLERANCE AS PER QUOTE +0.030/-0.000"	Firmed	-	12/16/19	20 pcs	0 pcs	20 pcs	\$61.72/pcs	\$1,234.40
										20 pcs GOS			
													NOV 29 2019
4	203488	D6104-007P	D6104		17-4 SS Roundbar 4.50"Od : AS PER DWG D6104 REV. B MATERIAL: 17-4 PH AS PER 17-4 (AMS 5643 OR AIS 630) MIN UTS = 170 KSI (38 HRC) TOLERANCE ON ALL DIMS IS +0.030/-0.0000	Firmed	-	12/16/19	10 pcs	0 pcs	10 pcs	\$68.53/pcs	\$685.30
										10 pcs GOS			
													NOV 29 2019
Grand Total:												\$3,918.50	

HRC

38

35 ~ 3875

42

40



Dart Aerospace Ltd.
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Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB045164



Order Notes

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable). No Raw Metals from China or Soviet Bloc Countries. (DFARS)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program.

A049 supplier awareness.

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 11/20/19 1:04 PM Dart.Lavoie.Chantal



Castle Metals®

A. M. Castile & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 2

Shipment No:4050173

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
Date Shipped 27-NOV-19	Inco Terms FCA HAWKESBURY ON CAN	Freight Terms Prepay & Add	Carrier LOCAL FLEET	BOL No 4050173-6

Shipment Details
Final Destination Branch - TOR

Order No 5661863	Line No 3	Item No 14998.MO	Description 4.5000.RD.17CR-4NI.STAINLESS.RT.SOL TR.COND A.132.0000-156.0000 CUT TO 5.1 IN (+ .1250/- .0000 IN) - BAND SAW CUTTING SPECIFICATIONS: AMS 5643		
Purchase Order No POHB045164	Part Number YOUR ITEM NUMBER: D6104-007	Ordered Qty 10.00 PCS	Invoice Qty 10.00 PCS		
Details ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #S Email P/s and certs to: clavoie@dataero.com END-USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS					
Delivery No. 122998472	Mill NORTH AMERICAN STAINLESS	Heat Number 	Mech Id 10	Width (IN)	Length (IN) 236.4263

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description.

Date Printed: 27-NOV-2019 03:52:46 PM



Castle Metals®

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 2 of 2

Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material, and the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Date: Name:

NOV 27 2013



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 493422 3 Mail To:
CASTLE METALS
Customer: 007209 001 2150 ARGENTIA ROAD
MISSISSAUGA, ON L5N 2K7

Ship To:
CASTLE METALS
2150 ARGENTIA ROAD
MISSISSAUGA, ON L5N 2K7

Date: 3/20/2019 Page: 1
Steel: 630(17-4)
Finish: HR

Your Order: 43808

NAS Order: PN 0102143 01 Heat Treat Code: 52,006

Corrosion:
Red Ratio: 3.7 : 1

PRODUCT DESCRIPTION:

Round Bar, Hot Rolled, Annealed, Rough Turned
UNS S17400, EN 10204 3.1, ASTM A484/18, MACRO OK, AMS 5643/V
ASTM A564/13el, AMS 2303/F, ASME SA564/13, ASTM F899/12B
SOL. ANNEALED @ 1900F MIN FOR 1 HR MIN. AND AIR COOLED TO RT
UT PER API6A PSL3, ASTM A388/S1 CRITERIA, UT PASSED
H900 MECH. PROPERTIES ARE CAPABILITY ONLY*

REMARKS:

COMPLIES W/REQUIREMENTS OF DEAR 252.235-7009 EU DIRECTIVE
2011/65/EU, ROHS, EAF+AD+CC. NO WELD REPAIR. WELDED AND MPG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Std #	Diameter	Size	Weight	-----Length-----	Mark	Pieces	Commodity Code
BK2145 6		4.5000		1,261			1	1

CHEMICAL ANALYSIS

CM(Country of Melt) ES(Span) US(United States) ZA(South Africa) JP(Japan)

ANAB, ISO/IEC 17025, Certificate# 12323
Chemical Analysis per ASTM A751/14a

NAS Heat	CM	C %	CB %	CO %	CR %	CU %	MN %	MO %	N %	NI %
B13Y	US	.010	.218	.02	15.13	3.37	.80	.009	.026	4.24
P %	S %	SI %	TA %	TI %						
.016	.0236	.58	.0050	.0020						

MECHANICAL PROPERTIES

Product Id	1 d o i c r	HB Mo.	Grain No.	Ferrite %	TS-900CAP KSI	YS-900CAP KSI	EL-900CAP % AD	RA-900CAP %	RC-900CAP No.	FREQ. No.
BK2145 6	RL	321.0	7.0	.19	200.11	180.29	12.63	41.65	41.0	.05



NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

KRIS LARK

3/20/2019



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 493422 3 Mail To:

Customer: 007209 001 CASTLE METALS
2150 ARGENTIA ROAD
MISSISSAUGA, ON L5N 2K7

Ship To:

CASTLE METALS
2150 ARGENTIA ROAD
MISSISSAUGA, ON L5N 2K7

Date: 3/20/2019 Page: 2

Steel: 630(17-4)

Finish: HR

Your Order: 43808

NAS Order: PM 0102143 01 Heat Treat Code: 52.006

Corrosion:

Red Ratio: 3.7 : 1

PRODUCT DESCRIPTION:

Round Bar, Hot Rolled, Annealed, Rough Turned
UNS S17400; EN 10204 3.1, ASTM A484/18, MACRO OR, AMS 5643/Y
ASTM A564/13e1, AMS 2303/F, ASME SA564/13, ASTM F899-1428
SOL. ANNEALED @ 1900F MIN FOR 1 HR MIN. AND AIR COOLED TO RT
UT PER API6A PSJ3, ASTM A388/S1 CRITERIA, UT PASSED
H900 MECH. PROPERTIES ARE CAPABILITY ONLY*

REMARKS:

COMPLIES W/REQUIREMENTS OF DEAR 252.225-7009 EU DIRECTIVE
2011/65/EU, ROHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
BK2145 6		4.5000		1.261	144.00	1	1	

CHEMICAL ANALYSIS

NAS Heat CM CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

ANAB, ISO/IEC 17025, Certificate# L2323
Chemical Analysis per ASTM A751/14a

B13Y US

MECHANICAL PROPERTIES

Product Id	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	SEV. No.
BK2145 6	R L	.03

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

KRIS LARK

3/20/2019



MATERIAL RECEIPT INSPECTION FORM

MATERIAL: D6104-007
DATE: 2019-11-28

PO / BATCH NO.: POM3045164 / 5235961

MATERIAL CERT REC'D: YES
QUANTITY RECEIVED: 10 PLS
QUANTITY INSPECTED: 10 PLS
QUANTITY REJECTED: 0

THICKNESS ORDERED: Ø 4.500 L 5.100
THICKNESS RECEIVED: Ø 4.500 L 5.100
SHEET SIZE ORDERED: —
SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y ☒ N	
CORRECT FINISH	☒ Y N	
CORROSION	Y ☒ N	
CORRECT GRAIN DIRECTION	☒ Y N	
CORRECT MATERIAL PER M-DRAWING	☒ Y N	AMS 5643
CORRECT THICKNESS	☒ Y ☒ N	
PHOTO REQUIRED	Y ☒ N	
CORRECT REF # TO LINK CERT	☒ Y N	H/T B137
CORRECT MATERIAL IDENTIFICATION	☒ Y N	
CORRECT M# ON THE MATERIAL	☒ Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y ☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y ☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL	SS				
SIZE OF TEST SAMPLE	4				
HARDNESS / DUROMETER READING	38				

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>[Signature]</u>	DAS	SIGNED OFF BY: _____	
DATE: <u>2019-11-28</u>	81	DATE: _____	
	9-89		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in